

spinal cord of the dog, and gives the following summary of his results, confirming in the main the results obtained by Woroschiloff, Ott, and R. M. Smith, with the same methods of study: 1. The lateral columns contain the sensory and motor fibres. 2. The anterior columns consist mainly of centrifugal fibres which, after destruction of the lateral columns, are capable of assuming their functions to a certain extent. 3. The posterior columns are largely formed of centripetal fibres. 4. The gray substance contains no continuous path of conduction. 5. The sensory fibres from the lower extremities decussate in the cord. 6. After a hemisection of the spinal cord, the motor nerves of the lower extremities preserve their functions as high as the anterior roots of the nerves on the level of the section on the opposite side of the cord. 7. Vaso-constrictor fibres run only in the lateral columns.—*Am. Med. Four. Med. Sci.*, Jan. 1883. *Medicnische Jahrbücher*, 1882, 11 Heft. ISAAC OTT, M.D.

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*b.*—GENERAL PATHOLOGY OF THE NERVOUS SYSTEM.

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DEAFNESS IN HYSTERICAL HEMIANÆSTHESIA.—Dr. G. L. Walton, of Boston, gives (*Brain*, Jan., 1883) the result of his examination of the hearing of thirteen patients affected with hemianæsthesia, in Salpêtrière, made at Professor Charcot's suggestion. Referring to the fact that in the hemianæsthesia of hysteria insensibility involves not only the skin and mucous membranes, but usually extends to sight, smell, taste, and hearing on the same side, the writer quotes Féré in his remarks on the involvement of the special senses, and also cites Jolly, Uspenski, Gellé, and Urbantschitsch, in reference to hysterical deafness. He divides his patients into three classes: those with *complete* anæsthesia on one side, the other side remaining intact; those with *incomplete* anæsthesia on one side, the other remaining intact; and those with anæsthesia more or less complete on both sides. In the *first class*, as in all, the anæsthesia extends to the deep part of the ear; and being complete in this class the tympanum may be touched without any acknowledgment of sensation, and without the least reflex movement. In such a case the patient will be unable to tell with the eyes closed whether there is an instrument in the ear or not. Touching the deep parts of the opposite ear in these patients produces the usual disagreeable sensation and reflex movement, generally indeed exaggerated. That the anæsthesia extends to the middle ear is seen by the fact that insufflation by the Politzer air douche produces no sensation in the ear of the affected side. This is a fact to be borne in mind in the examination of these cases, for if the patient's sensations were relied on, the Eustachian tube might be supposed impermeable. In this class of patients neither the watch, the voice, nor the tuning-fork are heard by the affected ear, and no tuning-fork is heard on this side when vibrating against the skull.

The tuning-fork vibrating in contact with the forehead or teeth is heard only on the healthy side, in direct opposition to the cases in which loss of hearing is due to defective conductivity in the ear, and in which the tuning-fork is heard more distinctly on the affected side.

In the *second class* of patients the loss of sensibility of the ear corresponds, as a rule, to that of the body in general. A common form consists of analgesia, with thermo-anæsthesia and diminution of tactile sensibility. The tympanum of the affected ear may be touched without producing any unpleasant sensation, the touch being only faintly perceived, and being followed by no reflex. The air douche produces a slight sensation. The degree in which the hearing is affected varies within certain limits, but has been found lessened in every case examined. In some of these cases a diminution is found in the hearing for sounds conveyed by air, and a diminution or loss of hearing for sounds conveyed by the bone. In the *third class*, in which the anæsthesia is total, the completeness of the anæsthesia is rarely the same on both sides, a common form being hemianæsthesia on one side, and analgesia on the other. The degree of deafness always corresponds to that of the anæsthesia. Attention is called to the uniformity with which deafness for sounds conveyed by the bone exceeds that for sounds conveyed by the air, and the explanation offered that this is probably due to the fact that the vibrations conveyed to the ear by the air are better adapted for the irritation of the peripheral auditory apparatus than those conveyed by the bone. When, then, the receptive power of the auditory centres is lessened, as is probably the case in the hysterical patients, the hearing for sounds conveyed by the bone disappears before that for sounds conveyed by the air. An analogous condition exists in the aged. When the phenomena of transfer are observed the hearing as well as the general sensibility of the deep parts of the ear improves on one side (allowance being made for accidental lesions in the ear itself) in exactly the same degree in which it disappears on the other.

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MICROCOCCHI IN CEREBRO-SPINAL MENINGITIS.—Prof. Leyden recently exhibited (Verhandlung. des Vereins f. innere Medicin, Berlin, Feb. 19th) specimens of micrococcus stained with fuchsin, and obtained from the cerebro-spinal fluid, taken from the body in a fresh state in a case of sporadic cerebro-spinal meningitis. These organisms are characterized by a distinctly oval form, usually united in pairs (diplococci) or more rarely in little chains (streptococci). They resemble greatly the micrococci of pneumonia and of erysipelas, and yet differ somewhat from these forms. The writer refers to the fact that Klebs and Ebarth found micrococci in the arachnoid fluid in cases of meningitis and pneumonia. The case represents an independent primary cerebro-spinal meningitis which began with otitis on both sides. The differentiation between the putrefactive micrococcus and the specific micrococci is not difficult